SCIENCE

VOL. 98 FRIDAY, OCTOBER 8, 1943 No. 2545

SCIENCE: A Weekly Journal devoted to the Advancement of Science, edited by J. MCKEEN CATTELL; WARE CATTELL, assistant editor. Published every Friday by

THE SCIENCE PRESS

Lancaster, Pennsylvania

Annual Subscription, $6.00 Single Copies, 15 Cts.

SCIENCE is the official organ of the American Association for the Advancement of Science. Information regarding membership in the Association may be secured from the office of the permanent secretary in the Smithsonian Institution Building, Washington, D. C.

RECENT ANTHROPOLOGY[1]

By the late Professor FRANZ BOAS

FROM time to time I have found it useful to reexamine the general principles which I have been following in my scientific work and to compare them with new tendencies which were springing up in our own and related sciences and which were modifying and extending both the field of our researches and the methods of investigation. It so happens that I have stated the results of such reexamination of principles at intervals of about ten years, beginning in 1888 with the acceptance of views generally held by ethnologists of that period. The last time I gave such a review was in 1932. I have been asked to give to-day a similar review of the problems and methods of anthropology as I see them.

Before the development of field research, planned for the investigation of specific, detailed problems, the endeavor of the field worker used to be primarily to obtain information, as complete as possible, regarding the types of bodily build, of linguistic expression and of other cultural features that set off one human society from others. In 1888, when I was charged by the British Association for the Advancement of Science with an investigation of the Indians of British Columbia, a summary report on the types and customs of the Indians of that province was the task entrusted to me. By necessity it resulted in a picture in which general impressions were combined in a standardized whole. Individual variations within the group had to be neglected. They were not considered as relevant. Furthermore, they can not be obtained by these methods, for they require long-continued personal relations between the observer and members of the group which he wishes to study.

It will perhaps be best to discuss the problems that

[1] Read before the American Ethnological Society, May 13, 1942.

dressings. These patients are clinically improved, but final evaluation will await a subsequent report.

Our laboratory observations and limited clinical experience indicate that this method of treating acute and chronic pyogenic surface infections may hold promise of a possible addition to our therapeutic armamentarium.

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SCIENTIFIC APPARATUS AND LABORATORY METHODS

AN AUTOMATIC FLOW SWITCH FOR WATER-COOLED APPARATUS

IT is often desirable in the continuous operation of a water-cooled apparatus, such as a diffusion pump, to have an automatic device to stop the heating should the flow of cooling water drop appreciably or even stop. A simple and easily constructed device for the protection of such apparatus is described.

The switch was made from 8 mm pyrex tubing as shown in Fig. 1. Two sealed-in leads of tungsten

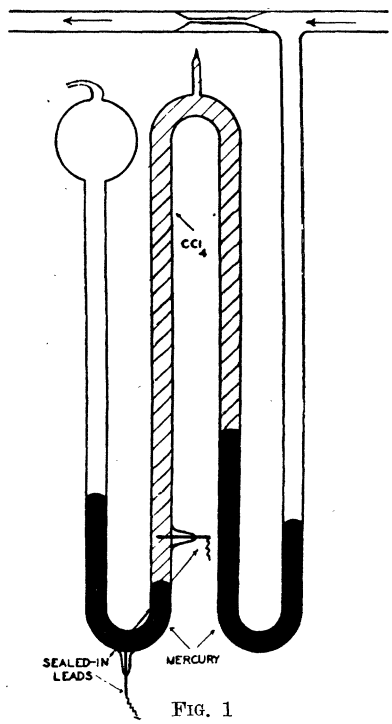

FIG. 1

wire were used for contacts. The two U-tubes are approximately twenty cm in height, but the dimensions are, of course, not critical. Two U-tubes in series are necessary to prevent ordinary chlorinated tap-water from coming in contact with the leads. The size of the orifice is 2 to 3 mm and must be varied with the flow rate desired. The two U-tubes are partially filled with mercury, with the intervening space filled with either an inert liquid or air. The use of a column of air to connect the two mercury columns renders the switch extremely sensitive to slight pressure changes.

The switch is inserted in the cold water inlet of the condenser or other water-cooled apparatus, and as long as sufficient cooling water is flowing the mercury in each U-tube stands at different heights. Should the flow of water cease, however, the mercury is restored to the normal level and electrical contact is made between the two sealed-in wires. The switch is connected in series with a normally closed relay to break the heater circuit when the flow of water ceases.

If the uppermost sealed-in lead is built into the opposite arm of the U-tube, the mercury is in contact with the two leads as long as the water is flowing, and in this case the circuit is broken rather than closed by a drop in flow rate of cooling water. Thus, the switch can be constructed so that failure of cooling water supply will either complete or break an electrical circuit, and hence the switch can be used with either a normally closed or normally open relay depending upon which side of the U-tube the contact wire is inserted. If the heater current is reasonably low the switch itself can be used directly in the heater circuit without the use of a relay.

This safety device was developed during an investigation which was supported by a grant from the Abbott Fund of Northwestern University.

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BOOKS RECEIVED

HAAGENSEN, C. D. and WYNDHAM E. B. LLOYD. *A Hundred Years of Medicine.* Illustrated. Pp. xii + 444. Sheridan House, Inc. $3.75.

KELLS, LYMAN M. *Calculus.* Illustrated. Pp. viii + 509. Prentice-Hall, Inc. $3.75.

MORGAN, CLIFFORD T. *Physiological Psychology.* Illustrated. Pp. xii + 623. McGraw-Hill Book Company. $4.00.

ROBERTSON, G. ROSS. *Laboratory Practice of Organic Chemistry.* Pp. x + 369. Macmillan Company. $2.50.

Smithsonian Institution. Annual Report of the Board of Regents Showing the Operations, Expenditures, and Condition of the Institution for the Year Ended June 30, 1942. Illustrated. Pp. xiii + 421. U. S. Government Printing Office. $1.50.

SNELL, CORNELIA T. and FOSTER DEE SNELL. *Chemistry Made Easy.* Four Volumes. *The Theory of Inorganic Chemistry. Elements and Compounds in Inorganic Chemistry. The Aliphatic and Aromatic Compounds of Organic Chemistry. Chemicals of Commerce.* Pp. xxx + 1,214. D. Van Nostrand Company, Inc. $7.95.

STRONG, EDWARD K. *Vocational Interests of Men and Women.* Illustrated. Pp. xxix + 746. Stanford University Press. $6.50.

TANNEHILL, IVAN RAY. *Weather around the World.* Illustrated. Pp. xi + 200. Princeton University Press. $2.50.

ZEMANSKY, MARK W. *Heat and Thermodynamics.* Illustrated. Pp. xiv + 390. McGraw-Hill Book Company. $4.00.